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**Gallagher et al.**

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(54) **COGNITIVE TRAFFIC SIGNAL CONTROL**

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CPC ..... **G08G 1/081** (2013.01); **G08G 1/0141** (2013.01); **G08G 1/0145** (2013.01)

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See application file for complete search history.

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(57) **ABSTRACT**

In an approach for adapting traffic signal timing, a computer receives a streaming video for one or more paths of a first intersection. The computer identifies traffic within the received streaming video. The computer calculates traffic flow for the one or more paths of the first intersection based on the identified traffic. The computer determines whether a change in a state of a traffic signal for the first intersection should occur based at least in part on the identified traffic and the determined traffic flow with respect to predefined objectives. Responsive to determining the change in the state of the traffic signal for the first intersection should occur, the computer calculates a change to a traffic signal timing based on the determined change in the state of the traffic signal. The computer initiates an adaptation to the traffic signal timing based on the determined change to the traffic signal timing.

**20 Claims, 3 Drawing Sheets**

